

Application Number 10/731,867
Amendment in response to Final Office Action mailed April 4, 2008

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REMARKS

This Amendment is responsive to the Final Office Action dated April 4, 2008. Applicant has amended claims 1, 7, 10, 12-19, 21, 29-31, and 33, canceled claim 2, and added new claim 35. Claims 1, 3-10, 12-22, 28-31, and 33-35 are pending.

In view of the above amendments and the following comments, Applicant respectfully requests reconsideration and withdrawal of the rejections set forth in the Final Office Action.

Claim Objections

In the Final Office Action, claims 1, 7, 18, 19, 21, 29, 30, and 33 were objected to because of inadvertent typographical and/or grammatical errors that render the language awkward and/or ambiguous.

Applicant has amended claims 1 and 30, and respectfully suggests that the amended claims are clear. Lines 2-3 of previously presented claims 1 and 30 recited, "a plurality of interconnected modules, at least one of the modules comprising a metallic housing." Applicant has amended lines 2-3 of claims 1 and 30 to recite, "a plurality of interconnected modules, wherein at least one of the modules comprises a metallic housing." Applicant respectfully suggests that claims 1 and 30 as amended do not have awkward and/or ambiguous language.

Applicant has amended claims 7, 18, 19, 21, 29 as suggested in the Final Office Action, and has amended claim 33 to clarify the claimed subject matter. In view of the amendments and the above comments, Applicant respectfully requests withdrawal of the objections to claims 1, 7, 18, 19, 21, 29, 30, and 33.

Claim Rejection Under 35 U.S.C. § 112

In the Final Office Action, claims 12 and 13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claims 12 and 13 in a manner similar to the Examiner's recommendations for purposes of clarification. Applicant submits that claims, as amended, particularly point out and distinctly claim the subject matter, as required by 35 U.S.C. § 112, second paragraph.

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Claim Rejection Under 35 U.S.C. § 103

In the Final Office Action, claims 1-10, 12-22, 28-31, 33 and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Faltys et al. (U.S. Patent No. 6,308,101, hereafter Faltys) in view of Probst et al. (U.S. Patent Application Publication No. 2003/0017372, hereafter Probst). Applicant respectfully traverses the rejection to the extent such rejection may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Claims 1-10, 12-22, 28, 29, and 33

Claim 1 as previously presented required, in part, an implantable medical device comprising an overmold that at least partially encapsulates each of the modules, wherein the overmold is formed such that a surface of the overmold is concave along at least one axis prior to manipulation of the implantable medical device such that the surface is adapted to be implanted proximate to a cranium of the patient. In this Amendment, Applicant has amended claim 1 to expedite prosecution of the pending application. For example, Applicant has amended claim 1 to require, in part, that the overmold is formed such that a surface of the overmold is concave along two perpendicular axes prior to manipulation of the implantable medical device and is adapted to be implanted proximate to a cranium of the patient.

The applied references fail to teach or suggest an implantable medical device comprising an overmold that is formed such that a surface of the overmold that is proximate to a cranium of a patient when the implantable medical device is implanted on the cranium is concave along two perpendicular axes, as required by amended independent claim 1. The Final Office Action recognized that Faltys fails to teach or suggest that encasing mold 174 is concave along at least one axis prior to manipulation of the IMD such that the surface is adapted to be implanted proximate to a cranium of the patient.¹ The Final Office Action cited Probst as teaching opposed major sidewalls 62, 64 of a contoured shape,² and stated that it would have been obvious to modify the overmold 174 of Faltys such that a surface is concave prior to manipulation of IMD

¹ Final Office Action dated April 4, 2008, page 5, lines 17-21.

² Final Office Action dated April 4, 2008, page 5, lines 22-23.

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160 in order to provide an improved IMD adapted to be implanted proximate the cranium of the patient, which may be easily implanted without undo excavation of the implant site.³

However, Probst fails to teach an overmold that is concave along two perpendicular axes, as required by amended independent claim 1. Instead Probst teaches a housing that is contoured in a single direction, which in some embodiments, may include different radii of curvature in this single direction.⁴ Therefore, even when considered in combination, Faltys and Probst still would fail to render obvious the requirements of amended claim 1.

Additionally, even if Probst could be considered to teach a housing contoured in one direction, such a teaching would not have motivated a person of ordinary skill in the art to modify the mold 174 of the device described by Faltys. As clearly illustrated in FIG. 3A of Faltys, SP/OWR unit 162 and ICS 112' are located between mold 174 and a cranium of a patient, because external headpiece 136 is illustrated above mold 174. Thus, mold 174 does not include a surface adapted to be implanted proximate a cranium of a patient. Instead, the surface of mold 174 nearest the cranium when IMD 160 is implanted contacts the flat surfaces of the housings of modules 162 and 112'. Accordingly, a person of ordinary skill in the art would not have considered it obvious to make the mold 174 of Faltys concave in one direction, much less along two perpendicular axes. Such a modification would not appear to have any benefit with respect to the Faltys system, and certainly would not provide an improved IMD adapted to be implanted proximate the cranium of the patient, which may be easily implanted without undo excavation of the implant site, as suggested in the Final Office Action.

Claims 2-10, 12-22, 28, 29, and 33 depend from claim 1 and are in condition for allowance for at least the above reasons. Additionally, the dependent claims introduce further limitations that are neither taught nor suggested by the applied references.

For example, for reasons similar to those presented above with respect to claim 1, one of ordinary skill would not have been motivated to modify mold 174 to conform substantially to the cranium, as required by claim 6. Again, mold 174 does not contact the cranium, and instead contacts the flat surfaces of modules 162 and 112'.

³ Final Office Action dated April 4, 2008, page 6, lines 5-12.

⁴ Probst, FIS. 7 and 8; paragraphs [0037]-[0042].

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The applied references also fail to teach or suggest the modules are positioned within the overmold in one of a triangular configuration and a linear configuration. As characterized in the Final Office Action, Faltys describes mold 174 is "formed so as to adhere to the sides" of SP/PWR unit 162 and the ICS 112' module.⁵ Clearly, SP/PWR unit 162 and the ICS 112' module are not positioned within the overmold in one of a triangular configuration and a linear configuration. Probst fails to provide any disclosure to overcome these deficiencies of Faltys.

The applied references also fail to teach or suggest the requirements of Applicant's amended claims 14 and 17. For example, the applied references fail to teach or suggest a housing that is concave along two perpendicular axes.

Amended claim 30 requires, in part, that the flexible overmold is formed such that a surface of the overmold is adapted to be implanted proximate to a cranium of the patient and is concave along two perpendicular axes prior to manipulation of the implantable medical device. For reasons similar to those presented above with respect to claim 1, the applied references fail to teach or suggest the requirements of Applicant's claim 30 as amended. For example, the applied references fail to teach or suggest that the flexible overmold is formed such that a surface of the overmold is adapted to be implanted proximate to a cranium of the patient and is concave along two perpendicular axes prior to manipulation of the implantable medical device.

Claims 31 and 34 depend from claim 30 and are in condition for allowance for at least the reasons identified with respect to claim 30.

For at least these reasons, the Final Office Action has failed to establish a prima facie case for non-patentability of Applicant's claims 1, 3-10, 10-22, 28-31, and 33-34 under 35 U.S.C. 103(a). Withdrawal of this rejection is respectfully requested.

⁵ Final Office Action dated April 4, 2008, page 5, lines 11-15.

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New Claims:

Applicant has added claim 35 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicant's new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions. As one example, the applied references fail to teach or suggest an overmold formed such that a surface of the overmold is concave along two perpendicular axes prior to manipulation of the implantable medical device and is adapted to be implanted proximate to a cranium of the patient. No new matter has been added by the new claims.

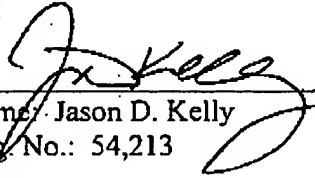
CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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